

814-EMD-001

EOSDIS Maintenance and Development Project

SCF Toolkit 5.2.12 for the EMD Project

Release Notes

Revision 02

Raytheon Company
Upper Marlboro, Maryland

Contents

1. Introduction

1.1	Purpose	1-1
1.2	Scope	1-1
1.3	Impact if Not Installed.....	1-1

2. Related Documentation

2.1	ECS Baseline Document	2-1
2.2	Vendor Documents.....	2-1

3. General Package Description

3.1	General Product.....	3-1
3.2	New/Added Capabilities or Major Fixes.....	3-1
3.3	Affected Subsystem(s)	3-1
3.4	Impacts to other COTS Products.....	3-1
3.5	License Impacts.....	3-1
3.6	Vendor Known Bugs.....	3-1

4. Inventory

4.1	Tar File Listing.....	4-1
4.2	Physical Media	4-1

5. Non-Conformance Status

5.1	NCR(s) Included in Release	5-1
5.2	Open NCR(s) Against This Release.....	5-3

6. Machines Impacted

6.1	Machines Impacted	6-1
-----	-------------------------	-----

7. Installation Instructions

7.1	Prerequisites	7-1
7.2	Installation Instructions	7-2
7.3	Back-Out Instructions	7-2

Appendix A. Test Verification

1. Introduction

1.1 Purpose

The SDP Toolkit and related software have been developed by Raytheon Systems Company (RSC) in support of the EOSDIS Core System (ECS) project and will be used by data production software developers and scientists as a part of code development at their Science Computing Facilities (SCF) and later will encapsulate that code in Distributed Active Archive Center (DAAC) computing facilities. The HDF-EOS libraries will also be used by consumers of EOS products to access and manipulate data structures. These products range from calibrated Level 1 to Level 4 model data.

SDP Toolkit 5.2.12, HDF-EOS 2.12, and HDF-EOS 5.1.8 are versions that match ECS Software, Drop 7.00, installed at DAAC facilities.

1.2 Scope

This document describes the contents of the package delivery for SCF Toolkit 5.2.12 for the ECS Project; matching functionality in ECS Drop 7.00. The document identifies the baseline and patch level of the delivery. It also provides an inventory of the delivery, list fixed NCRs, and special operating instructions where applicable.

1.3 Impact if Not Installed

Using obsolete Science development software (Toolkit-related software) may adversely affect the running of Science Computing Facility software in the ECS system through incompatibilities.

This page intentionally left blank.

2. Related Documentation

2.1 ECS Baseline Document

- | | |
|--------------------|--|
| 333-EMD-001, Rev 2 | Release 7 SDP Toolkit User's Guide for the EMD Project |
| 170-EMD-001, Rev 2 | HDF-EOS Library User's Guide for the EMD Project, Volume 1: Overview and Examples |
| 170-EMD-002, Rev 2 | HDF-EOS Library Users Guide for the EMD Project Volume 2: Function Reference Guide |
| 175-EMD-001, Rev 2 | HDF-EOS Interface Based on HDF5, Volume 1: Overview and Examples |
| 175-EMD-002, Rev 2 | HDF-EOS Interface Based on HDF5, Volume 2: Function Reference Guide |

2.2 Vendor Documents

N/A

This page intentionally left blank.

3. General Package Description

3.1 General Product

This document accompanies the delivery of the Release 7.00 Science Data Production (SDP) Toolkit Version 5.2.12 and of the Hierarchical Data Format-Earth Observing System (HDF-EOS), Versions 2.12 and 5.1.8, software to the science user community. This also includes HDF-EOS 5.1.6.2. These versions contain fixes for problems found during the use of earlier versions. These releases also roll-up and include previously release patches (SCF Toolkits 5.2.12 and associated HDF-EOS releases).

3.2 New/Added Capabilities or Major Fixes

The following NCRs should be of special note to Instrument Team users for this release (note that some of those resolved were so resolved with prior patch releases):

HDF5 based HDF-EOS:

- ECSED40634 – Adding a new routine HE5_Swindexinfo() in Swapi.c for getting indices and giving them to user for a subsetted swath.
- ECSED40322 - Changed buffer allocation from static to dynamic for StructMetadata..

3.3 Affected Subsystem(s)

SDP Toolkit and HDF-EOS.

3.4 Impacts to other COTS Products

Supported HDF versions: HDF4.2r0 and HDF5-1.6.2

3.5 License Impacts

N/A

3.6 Vendor Known Bugs

N/A

This page intentionally left blank.

4. Inventory

4.1 Tar File Listing

This release contains the following tarfiles:

<u>Checksum</u>	<u>Blocksize</u>	<u>Filename</u>
3024974194	171163	HDF-EOS2.12_TestDrivers.tar.Z
4286734239	6759017	HDF-EOS2.12v1.00.tar.Z
2554967763	6710197	HDF-EOS5.1.8tar.Z
2661456252	281858	HDF-EOS5.1.8TESTDRIVERS.tar.Z
2228894600	6335367	HDF4.2r0.tar.Z
3428419971	11635968	SDPTK5.2.12v1.00.tar.Z
3963584836	2509779	SDPTK5.2.12v1.00_TestDrivers.tar.Z
2913083445	6897593	hdf5-1.6.2.tar.Z
2246787493	951397	jpegsrc.v6b.tar.Z
288441717	98774	szip1.1.tar.gz
990321540	550920	zlib-1.2.1.tar.Z

4.2 Physical Media

N/A

This page intentionally left blank.

5. Non-Conformance Status

5.1 NCR(s) Included in Release

The following NCRs are those affecting the SCF Toolkit.

Table 5.1-1. NCRs Included in Release (1 of 2)

NCR Number	Severity	State	Subsystem	Issuing Site	Description	Test Site	Status
ECSed38296	3	V	TOOLKIT	EDF	Write format problem in linux or dec in PGS_IO_Gen_Temp_Reference.c	EDF	
ECSed38724	4	M	TEST DRIVERS	EDF	Need to update samples in TOOLKIT testdrivers	EDF	
ECSed39241	5	V	TOOLKIT	EDF	CUC tools cannot be installed because of missing search.h file on MAC	EDF	
ECSed39243	4	V	TOOLKIT	EDF	Could not check some SMF and MEM tools on MAC	EDF	
ECSed39244	4	V	TOOLKIT	EDF	The executable sendmail is missing in MAC machine that TOOLKIT is ported	EDF	
ECSed40111	3	M	HDF_EOS	EDF	Need to clarify selecting ORIGIN of a grid and fix any related problems	EDF	
ECSed40322	3	V	HDF_EOS	EDF	Need to change buffer allocation from Static to Dynamic for StructMetadata	EDF	
ECSed40400	3	V	TOOLKIT	EDF	Unusual results for some tools in TOOLKIT in RedHat 9 linux	EDF	
ECSed40437	3	V	TOOLKIT	EDF	Change MAC and Linux64 for Toolkit 5.2.11 release	EDF	

Table 5.1-1. NCRs Included in Release (2 of 2)

NCR Number	Severity	State	Subsystem	Issuing Site	Description	Test Site	Status
ECSed40458	3	V	HDF_EOS	EDF	Need to check the max dimension list for Xdim and YDim	EDF	
ECSed40472	3	C	HDF_EOS	EDF	HE5_Gddefboxregion() doesn't support the projection code GCTP_GEO	EDF	
ECSed40508	3	M	TESTDRIVE RS	EDF	SCtoUTC time testing needs to be updated by moving a SC time to future	EDF	
ECSed40561	2	M	TOOLKIT	EDF	Modify Toolkit build scripts for the macintosh platform	EDF	
ECSed40562	3	C	TESTDRIVE RS	EDF	Modify Toolkit test_drivers for the macintosh platform	EDF	
ECSed40590	3	M	TOOLKIT	EDF	Problem with smfcompile path	EDF	
ECSed40603	3	C	HDF_EOS	EDF	The call to HE5_Ehwriteglbattr() ignores the user supplied count value	EDF	
ECSed40623	3	V	HDFEOS	EDF	The data type for string data returned by Swinqdatatype is wrong	EDF	
ECSed40634	3	V	HDF_EOS	EDF	Adding a new routine HE5_Swinindexinfo() in Swapi.c	EDF	
ECSed40635	3	C	HDF_EOS	EDF	Cannot subset on a one-dimensional field	EDF	
ECSed40665	3	V	HDF_EOS	EDF	Need to add a new function to HDF-EOS5 to suppress HDF5 error report	EDF	
ECSed40735	4	V	HDF_EOS	EDF	Supply Character String Lengths So That Aura Team can Read HDF-EOS File	EDF	
ECSed40816	3	M	HDF_EOS	EDF	Need a routine that returns a list of fields & aliases in Gdapi.c	EDF	

5.2 Open NCR(s) Against This Release

Table 5.2-1. NCR Liens

NCR Number	Severity	State	Subsystem	Issuing Site	Description	Test Site	Status
ECSed39245	4	N	HDF_EOS	EDF	For Linux 64 bit Opteron HDF5 cannot be installed with SZIP	EDF	
ECSed39439	3	R	HDF_EOS	EDF	Swregionindex suspected to be out of sync with SWdefboxregion		
ECSed40083	5	N	TOOLKIT	EDF	Reading HDF-EOS type ephem/attit files is slower than reading binary type	EDF	
ECSed40506	3	N	TOOLKIT	EDF	DEM & EPH tools may have memory leaks	EDF	
ECS40622	3	A	HDF_EOS	EDF	Suppressing of HDF5 error messages is requested by UAH subsetting group	EDF	
ECSed40818	3	N	HDF_EOS	EDF	Need a routine that returns a list of aliases for a given field	EDF	
ECSed40788	3	N	HDF-EOS	EDF	Need to add ISIN, CEA and BCEA projection to HDFEOS	EDF	

This page intentionally left blank.

6. Machines Impacted

6.1 Machines Impacted

Supported Platforms and OS and compiler versions:

***** COMPILERS *****

PLATFORM O/S C F77 F90

DEC Digital UNIX 4.0d 5.2 5.2 --

HP HP-UX 10.20 10.32 10.24 --

**HP HP-UX 11.0 11.02.02 -- 11.01.27

SGI IRIX 6.5.9 7.3.1.2 7.3.1.2 7.3.1.2

SUN Solaris 2.5.1 4.2 4.2 --

SUN Solaris 5.8 5.2 5.2 6.1 (F95)

*LINUX LINUX 2.2.16-22 2.96 (gcc) v0.5.24 (g77) pgf90

LINUX 64-bit (Opteron)SUSE Linux, 3.3 (gcc)3.3 (g77)

RedHat Enterprise3.2.3 (gcc)3.2.3 (g77)

LINUX 64-bit (Itanium)ia64 Linux2.2.3 (gcc)3.2.3 (g77)

MACINTOSHDarwin3.3.2 (gcc)3.1 (g77)

*Packaged as Red Hat Linux 7.0

**Currently HP support is limited to 32-bit processing because of HDF limitations. NCSA is aware of this problem and we await a resolution.

This page intentionally left blank.

7. Installation Instructions

7.1 Prerequisites

Estimated Installation Time: 3 hours for an experienced operator, novice, etc.

Obtaining the Software by FTP-site access:

DOWNLOAD SEQUENCE FOR TOOLKIT 5.2.12 AND HDF-EOS 2.11 FILES:

```
>ftp edhs1.gsfc.nasa.gov (begin ftp session)
username> anonymous (login as anonymous)
password> user@my.site (enter email address as password)
ftp>quote site group sdptk (change group to sdptk)
ftp>quote site gpass ***** (enter password for sdptk group)
ftp>cd sdptk(change to toolkit directory)
ftp>binary (set transfer mode to binary)
ftp> get SDPTK5.2.12v1.00.tar.Z
ftp> get SDPTK5.2.12v1.00_TestDrivers.tar.Z
ftp> get [any of the documents desired]
```

DOWNLOAD SEQUENCE FOR THE HDF-EOS 2.12 SOFTWARE AND USER'S GUIDE

```
ftp> cd ../hdfeos
ftp> binary
ftp> get HDF-EOS2.12v1.00.tar.Z
ftp> getHDF-EOS2.12v1.00_TestDrivers.tar.Z
ftp> get HDF4.2r0.tar.Z
ftp> getjpegsrc.v6b.tar.Z
ftp> getzlib-1.2.1.tar.Z
ftp> cd docs
ftp> get [any of the documents desired]
```

DOWNLOAD SEQUENCE FOR THE HDF-EOS5 SOFTWARE AND USER'S GUIDE

```
ftp> cd ../hdfeos5
ftp> binary
ftp> get HDF-EOS5.1.8.tar.Z
ftp> get HDF-EOS5.1.8_TESTDRIVERS.tar.Z
ftp> get hdf5-1.6.2.tar.Z
ftp> get szip1.1.tar.gz
ftp> cd docs
ftp> get [any of the documents desired]
ftp> bye
```

----- WHAT TO DO IF YOU HAVE PROBLEMS -----

The procedures above have been tested to verify their integrity. If you do have problems, please check with your local system administrator first. If the problem cannot be resolved, send a reasonably detailed e-mail message to pgstlkit@eos.east.hitc.com.

If you have a problem or suggestion regarding the use of the Toolkit or HDF-EOS, use the same e-mail address. Please note that your comments and suggestions will be easier to document and keep track of if you use e-mail.

We expect you to follow up your message with the form provided in the e-mail feedback procedure (see the file Feedback_proc.txt) so that it can be tracked.

7.2 Installation Instructions

Installation instructions can be found in the associated User's Guide for the product.

7.3 Back-Out Instructions

N/A

Appendix A. Test Verification

A.1 Test Procedures

The principal machine used for ECS verification is the SGI platform. This release was tested on all of the supported platforms prior to release; and an additional full delivery sequence was conducted on the SGI platform.

1. EDHS FTP site accessed
2. Required files downloaded
3. All files installed
4. Test drivers run and output checked for validity.

A.2 Test Report

Passed successfully.

A.3 Evaluation Package

N/A

EDF Evaluation Plan/Report

Technology Area: Software Development	Date:			
Requester:	Report No:			
Proposed Evaluation Group				
Applicability to ECS: Baseline Upgrade				
Reason Needed (Issue, need or risk): Vendor supported version of multi-threaded Open Client for SUN AND HP to replace beta version currently in baseline.				
Office <u>DDM</u>				
Office Manager: _____ Signature	Date			
1. Product Description: Sybase Open Client 12.0.0				
1.1 Hardware/Platform Requirements (consider operating system revision level) SUN AND HP				
1.2 Media Requirements:				
2. Vendor: (company name, address, etc.)				
2.1 Company Background:				
2.2 Point of Contact:	2.3 Phone Number:			
2.4 Fax Number	2.5 Email Address			
3. Evaluation Plan				
3.1 Date Needed:				
3.2 Length of Evaluation: (please check one)				
15 Days <input type="checkbox"/>	45 Days <input type="checkbox"/>	60 Days <input type="checkbox"/>	90 Days <input type="checkbox"/>	Other <input type="checkbox"/>
3.3 Product Price:				
3.4 EDF hardware, software and network requirements: Unix workstation set-up within an DCE cell.				
3.5 Schedule:				
3.6 Projected number of hours to be charged by each evaluator:				
3.7 Evaluation Criteria:				
4. Assessment of Product				
4.1 Evaluation Against Criteria				
5 Summary of Results				
ResultsReview Committee Comments:				
Priority:				
Disposition				

SC01SE95